

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A fluorescent protein described in the following (a) or (b):
 - (a) a protein having the amino acid sequence shown in SEQ ID NO: 1; or
 - (b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 1, which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 1, and which exists in the form of a monomer.

2. (Original) A fluorescent protein described in the following (a) or (b):
 - (a) a protein having the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9; or
 - (b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9, and which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9, respectively.

3. (Original) A fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29, and which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29, respectively.

4. (Original) DNA encoding a fluorescent protein described in the following

(a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 1; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 1, which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 1, and which exists in the form of a monomer.

5. (Original) DNA encoding a fluorescent protein described in the following

(a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9, and which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 3, 5, 7 or 9, respectively.

6. (Original) DNA encoding a fluorescent protein described in the following

(a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29, and which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 11, 13, 15, 17, 19, 21, 23, 25, 27 or 29, respectively.

7. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 2; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 2, and which has a nucleotide sequence encoding a protein that has fluorescence properties equivalent to those of the protein encoded by the nucleotide sequence shown in SEQ ID NO: 2 and that exists in the form of a monomer.

8. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 4, 6, 8 or 10; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 4, 6, 8 or 10, and which has a nucleotide sequence encoding a protein that has fluorescence properties equivalent to those of the protein encoded by the nucleotide sequence shown in SEQ ID NO: 4, 6, 8 or 10, respectively.

9. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 12, 14, 16, 18, 20, 22, 24, 26, 28 or 30; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 12, 14, 16, 18, 20, 22, 24, 26, 28 or 30, and which has a nucleotide sequence encoding a protein that has fluorescence properties equivalent to those of the protein encoded by the nucleotide sequence shown in SEQ ID NO: 12, 14, 16, 18, 20, 22, 24, 26, 28 or 30, respectively.

10. (Currently amended) A recombinant vector having the DNA according to ~~any one of claims~~ claim 4 ~~to 9~~.

11. (Currently amended) A transformant having the DNA according to ~~any one of claims~~ claim 4 ~~to 9 or the recombinant vector according to claim 10~~.

12. (Currently amended) A fusion fluorescent protein, which consists of the fluorescent protein according to ~~any one of claims~~ claim 1 ~~to 3~~ and another protein.

13. (Original) The fusion protein according to claim 12, wherein another protein is a protein that localizes in a cell.

14. (Currently amended) The fusion protein according to claim 12 ~~or 13~~, wherein another protein is a protein specific to a cell organella.

15. (Original) The fusion protein according to claim 12, wherein another protein is a fluorescent protein.

16. (Original) The fusion protein according to claim 15, which generates intramolecular FRET.

17. (Currently amended) A method for analyzing the localization or dynamics of a protein in a cell, which is characterized in that the fusion protein according to ~~any one of claims~~ claim 12 ~~to 14~~ is allowed to express in the cell.

18. (Currently amended) A fluorescent reagent kit, which comprises:

the fluorescent protein of ~~any one of claims~~ claim 1 ~~to 3~~;

~~the DNA of any one of claims 4 to 9~~ encoding a fluorescent protein

described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 1; or

(b) a protein, which has an amino acid sequence comprising a deletion,

substitution, and/or addition of one or several amino acids with respect to

the amino acid sequence shown in SEQ ID NO: 1, which has fluorescence

properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 1, and which exists in the form of a monomer;

the a recombinant vector of claim 10 having DNA encoding a fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 1; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 1, which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 1, and which exists in the form of a monomer.;

the a transformant of claim 11 having the DNA encoding a fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 1; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 1, which has fluorescence properties equivalent to those of the protein having the amino acid sequence shown in SEQ ID NO: 1, and which exists in the form of a monomer;

or the a fusion protein of any of claims 12 to 16, which consists of the fluorescent protein according to claim 1 and another protein.

19. (Original) A chromoprotein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 37; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 37, and which has light-absorbing properties.

20. (Original) A fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 39; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 39, and which has fluorescence properties.

21. (Original) A fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 41, 43, 45, or 47; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 41, 43, 45, or 47, which has fluorescence properties, and which has a stokes shift of 100 nm or greater.

22. (Original) DNA encoding a chromoprotein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 37; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 37, and which has light-absorbing properties.

23. (Original) DNA encoding a fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 39; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 39, and which has fluorescence properties.

24. (Original) DNA encoding a fluorescent protein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 41, 43, 45, or 47; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to

the amino acid sequence shown in SEQ ID NO: 41, 43, 45, or 47, which has fluorescence properties, and which has a stokes shift of 100 nm or greater.

25. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 38; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 38, and which has a nucleotide sequence encoding a protein that has light-absorbing properties.

26. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 40; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 40, and which has a nucleotide sequence encoding a protein that has fluorescence properties.

27. (Original) DNA described in the following (a) or (b):

(a) DNA having the nucleotide sequence shown in SEQ ID NO: 42, 44, 46 or 48; or

(b) DNA, which has a nucleotide sequence comprising a deletion, substitution, and/or addition of one or several nucleotides with respect to the nucleotide sequence shown in SEQ ID NO: 42, 44, 46 or 48, and which has a nucleotide sequence encoding a protein that has fluorescence properties and has a stokes shift of 100 nm or greater.

28. (Currently amended) A recombinant vector having the DNA according to ~~any one of claims~~ claim 22 to 27.

29. (Currently amended) A transformant having the DNA according to ~~any one of claims~~ claim 22 to 27 or the recombinant vector according to claim 28.

30. (Currently amended) A fusion protein, which consists of the protein according to ~~any one of claims~~ claim 19 to 24 and another protein.

31. (Original) The fusion protein according to claim 30, wherein another protein is a protein that localizes in a cell.

32. (Currently amended) The fusion protein according to claim 30 or 34, wherein another protein is a protein specific to a cell organella.

33. (Original) The fusion protein according to claim 30, wherein another protein is a fluorescent protein.

34. (Original) The fusion protein according to claim 33, which generates intramolecular FRET.

35. (Currently amended) A method for analyzing the localization or dynamics of a protein in a cell, which is characterized in that the fusion protein according to ~~any one of claims~~ claim 30 ~~to 32~~ is allowed to express in the cell.

36. (Currently amended) A reagent kit, which comprises:
the fluorescent protein of ~~any one of claims~~ claim 19 ~~to 21~~;
~~the DNA of any one of claims 22 to 27~~ encoding a chromoprotein described
in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 37; or

(b) a protein, which has an amino acid sequence comprising a deletion,
substitution, and/or addition of one or several amino acids with respect to
the amino acid sequence shown in SEQ ID NO: 37, and which has light-
absorbing properties;

the a recombinant vector of claim 28 having DNA encoding a
chromoprotein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 37; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 37, and which has light-absorbing properties;

the a transformant of claim 29 having DNA encoding a chromoprotein described in the following (a) or (b):

(a) a protein having the amino acid sequence shown in SEQ ID NO: 37; or

(b) a protein, which has an amino acid sequence comprising a deletion, substitution, and/or addition of one or several amino acids with respect to the amino acid sequence shown in SEQ ID NO: 37, and which has light-absorbing properties; or

the a fusion protein of any of claims 30 to 34 which consists of the protein according to claim 19 and another protein.